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"Schizoid Nondroids" and Fictions of Surveillance Capitalism

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This chapter posits the schizoid nondroid as a figurative concept connecting developments in environmental technologies, posthuman traumatic materialism, and contemporary surveillance capitalism. Schizoid nondroids are shown to consists of cognitive assemblages wielding surveillance capitalist powers, restricting cognizers' freedom of participation and harboring the potential for trauma as bodies and networked technologies become intertwined. Through the analysis of two contemporary novels, Dave Egger's dystopian satire *The Circle* (2013) and Malka Older's science-fiction novel *Infomocracy* (2016), schizoid nondroids are revealed to extract data, labor, and compliance from their constituents in order to drive profits and make leaving the exploitative assemblages impossible. These fictions of surveillance capitalism are revealed to offer a fruitful starting point for considering the interfacing of bodies and technology, a central feature of the contemporary condition of living with environmental technologies.

> Between the iron gates of fate
>
> The seeds of time were sown
>
> And watered by the deeds of those
>
> Who know and who are known.
>
> Knowledge is a deadly friend
>
> When no one sets the rules

(Peter Sinfield, "Epitaph" on *In the Court of the Crimson King*, 1969)

Introduction: Schizoids Among Us

In 1969, King Crimson and lyricist Peter Sinfield invoked the 21st-century schizoid man as the dark fate of future generations arising from the military-industrial excesses of the time. That same year, Philip K. Dick's novel *UBIK* described a series of false realities penetrated by the cold logic of aggressive consumption, both capitalist and cannibalistic in nature. Fifty years later, with the advent of intricate digital networks and the acceleration of information capitalism, King Crimson's schizoid men and Dick's schizoid androids have been joined by a new system that is hostile to life, the schizoid nondroid.[1]

In this chapter, I aim to connect aspects of digital and technological development, posthuman traumatic materialism, and global surveillance capitalism into a figurative concept that I call *the schizoid nondroid*. The analysis builds on N. Katherine Hayles's observation that "[h]uman complex systems and cognitive technical systems now interpenetrate one another in cognitive assemblages, unleashing a host of implications and consequences that we are still struggling to grasp and understand" (2017, 176). Schizoid nondroids are such an implication, a speculative synthesis of humans and technology as well as information capitalist systems that profit from the collection and modification of behavioral data. As such, my approach is closely aligned with the environmental understanding Susanna Lindberg and Hanna-Riikka Roine outline in the Introduction to this collection. The schizoid nondroid emerges as an example of the pervasive environmental technologies whose "effects [on] human ethics and justice" are obscured and with which "digital reality is primarily constructed" to benefit private capital (2021, 10).

My central claim is that schizoid nondroids are made up of cognitive assemblages in Hayles's sense, that is, they include networks of human and technological cognizers, and they wield the powers of surveillance capitalism in Shoshana Zuboff's sense.[2] Further, they operate through affordances provided by both networked technologies and the humans enmeshed with them, engendering an

accelerated mode of what Pramod K. Nayar terms *traumatic materialism*. In Nayar's view, networked posthuman existence in general marks individual bodies as interfaces that are central to the flow of information. These intersections of data and flesh can be traumatizing, even when they provide the benefits of technologically extended cognition.[3] I develop Nayar's view by showing that when such interfaces are present in schizoid nondroid assemblages, one of the effects of traumatic materialism is that humans adopt schizoid tendencies in service of the assemblage and its drive for increasing profits.

These features come to light in my analysis of two works of speculative literature, Dave Eggers's *The Circle* (2013) and Malka Older's *Infomocracy* (2016). Both novels present views into storyworlds where cognitive assemblages are at the heart of technologically advanced societies, contemporary in one case and a future one in the other. Hayles posits that an essential quality of cognitive assemblages, and one that separates them from networks, is the way they are "constantly adding and dropping components and rearranging connections" (Hayles 2017, 2). In the novels, however, the operation of complex systems gives rise to struggles over such free participation in cognitive assemblages and the circulation of information within them. Further, the novels represent different takes on the direction to which surveillance capitalism can take civilization. In *The Circle*, the world succumbs into techno-capitalist totalitarianism in a satirical fashion,[4] while in *Infomocracy* the tools of surveillance capitalism have been put to the use of a new, global form of technologically mediated democracy. Thus, the novels also illuminate different aspects of the schizoid nondroid. Eggers's novel shows how the nondroid is dependent on its human constituents to exert control on the members of the assemblage, while in Older's debut the ideals of cognitive assembling can be seen, in a chilling parallel to information warfare in the 21st century, to harbor the potential for severe cases of traumatic materialism. Both novels also stand apart from those mainstream narratives, referred to in the introduction, where issues of ethics are engaged through positing humanoid robots or androids as narrative devices for their interrogation.

To further clarify my neologism, I want to underline that the nondroids are *schizoid* because they act without regard to the effects they have on humans within their networks. Furthermore, they are *nondroids* because they incorporate the anxieties long associated with artificial humans, but are distinctly nonhuman wholes, despite including and being dependent on human action. They seek to manipulate both technology and people in order to commodify behavior in the form of data, creating revenue in the process. In so doing, schizoid nondroids are indifferent to humans, mostly because their negative effects on individuals are externalized and, usually, do not directly affect the revenue created in any significant way. This is due to the context of increasing machinic autonomy in which cognitive assemblages function. As Hayles puts it in Chapter 1, "As machines communicate more with each other than with us, the intervals and pervasiveness of machine autonomy increase – areas where machines make decisions that affect not only other machines but also humans enmeshed in cognitive assemblages" (2021, 40). That autonomy, regardless of a priori design or intention, is double-edged, affording both morally laudable and ignoble results for anyone within the sphere of influence of a cognitive assemblage.

The expansive nature of surveillance capitalism makes opting out of such assemblages increasingly difficult. For Hayles, cognitive assemblages are characterized by the unrestricted movement of constituents that circulate information, interpretations, and meanings between them. This leads to a distribution of both cognition and decision-making powers among both the human and the technological constituents (Hayles 2017, 4, 116). My analysis intends to show that this movement and distribution become warped when cognitive assemblages are a part of systems with a capitalist profit-drive. It is then that they are incorporated into schizoid nondroids: assemblages of humans and technology, where the whole extracts data and labor from its members in order to make it impossible for the members to leave their exploitative assemblages.

I first spell out the analytical move from schizoid androids to nondroids. Then, I illustrate the dependence of schizoid nondroid assemblages on their human

constituents and the spread of a schizoid ethos through the expanding assemblages. Third, I expand the concept of traumatic materialism to more accurately describe experience in body/technology interfaces that constitute life under information capitalism. Finally, I suggest that understanding the interfaces of bodies and technology are central for the critical reassessment of our surveillance capitalist present.

From Androids to Nondroids

I employ the analytical move from androids to nondroids to tap into the specific changes that the latest stage of information capitalism has brought onto contemporary experience as well as fiction's attempt to make sense of that experience. The droids and the phenomena of which they are abstractions are illustrated by a brief description of a transhuman character in William Gibson's science fiction novel *The Peripheral* (2014):[5] "Her head was perfectly still, eyes unblinking. He imagined her ego swimming up behind them, to peer at him suspiciously, something eel-like, larval, transparently boned … And then she smiled. Reflexive pleasure of the thing behind her eyes" (12).

Publicist Wilf Netherton, the focalizing character, perceives Daedra, his erstwhile lover and current client, in a distinctly nonhuman, even monstrous light, going so far as to separate her embodied self from the workings of her seemingly alien mind. This is much like the way Hayles reads similar characters in Philip K. Dick's novels as schizoid androids that "represen[t] the coming together of a person who acts like a machine with a literal interpretation of that person as a machine" (Hayles 1999, 161–2). According to Hayles, schizoid androids are intelligent, unable to feel empathy, do not understand others as humans, and are often gendered female. For her, they are the figure at the center of systems incorporating cybernetics, capitalism, gender, delusion, and reality (1999, 161). There lies a conceptual difference to nondroids: where the android is a personified figure, residing at the center of an earlier stage of

complex assemblages, the nondroid can be seen as a system that encompasses such assemblages and that has a distinctly inhuman modus operandi. The schizoid nondroid is not a singular figure into which the relations of capital, technology, and power flow or emanate from, but instead they represent the emergent schizoid tendencies of cognitive assemblages commodified by surveillance capitalism. Similarly, Hayles's recent focus on "nonconscious cognitive assemblages through which … distributed cognitive systems work" (2017, 2) is brought to bear on her earlier analysis of the schizoid ethos lurking in networked experience under capitalism.

Even as information capitalism and its technological systems have taken great strides since Dick's career and Hayles's seminal *How We Became Posthuman*, personified androids, as imagined by both Dick and Gibson, do not walk among us. For Dick, androids often represent the inhuman and unethical as they incorporate dimensions of artifice and power (Suvin 1992, 12–13), while similar transhuman characters in Gibson's fiction often coincide with the dystopian powers of advanced technologies in the service of shadowy global elites (Suoranta 2016, 18). The same schizoid ethos is at work in more commonplace systems incorporating humans and technology, when intelligence becomes disjointed from understanding others as humans. Such systems cannot, however, be fruitfully represented, in fiction or theory, by a personified metaphorical figure such as the android. Therefore I suggest that *nondroid* captures complexity in a way that *android* does not – while still retaining the aspect of a technological lifeform.

Schizoid nondroids are especially evident in contemporary speculative fiction that tries to narrativize worlds shaped by technology and capitalism. For instance, in Dave Eggers's best-selling novel *The Circle*, the eponymous corporation seeks to eradicate privacy completely in an attempt to achieve a fully connected, transparent society without crime or corruption, so as to create share-holder value and, ultimately, techno-capitalist totalitarianism.

In an ironically heavy-handed way, Eggers represents the nature of the company through a parallel between the three heads of the company and three sea

creatures brought, in a Muskian fashion via one person submarine, from the Mariana Trench to the Circle campus. Reclusive coding prodigy Ty is likened to a docile seahorse, hiding in corals and seaweed, while Eamon Bailey, "the public face of the company" (2013, 24) and a believer in the utopian potential of complete transparency, has an octopus as his counterpart, both probing and reaching to know all that happens. Finally, Tom Stenton, CEO and arch capitalist, finds his parallel in an immense, blind shark whose digestive process is in full view due to its translucent skin. The three marine lifeforms are placed in a shared tank at the end of the novel, and it is no surprise that the shark goes on to immediately consume both its tank-mates as well as all the seaweed and coral that are supposed to simulate their natural habitat. Onlookers see how all the variety of the environment is turned into uniform gray ash in the shark's intestines.

The sequence illustrates all the features I attribute to schizoid nondroid assemblages: they expand so as to become inescapable without regard to life within their purview; they induce traumatic effects on their constituents and restrict their possibilities of action; and they are dependent on humans to bring their power into fruition. Next, I turn to analyzing the contemporary stage of information capitalism and attempt to show the process through which human constituents within schizoid nondroid assemblages enact the ethos of the system. These tendencies can be located in the arc of *The Circle*'s plot and the development of Mae, the novel's protagonist.

Surveillance Capitalism with a Human Face

From the perspective of cognitive science, posthumanist theory, and digital technology studies, Hayles, Nayar, and Zuboff, respectively, chart similar waters of networked experience in the contemporary world. But due to their different starting points, their approaches also emphasize its different elements. For Hayles, studying how cognitive assemblages work "provides crucial resources for constructive intervention and systemic transformation" and such study becomes especially

important when the applications of cognitive assemblages are being developed in areas like autonomous weapon systems or increasingly sophisticated facial recognition (Hayles 2017, 143). Zuboff, for her part, calls attention to the saturation of bodies with data and the surveillance capitalist prospects of such a process, whereas Nayar notes that a "posthuman condition" emerges when "info-flows are materially produced through a mix of human and non-human actors where the possibility of action is embodied as both territory and bodily locations" (Nayar 2014, 66). This way, all three can be seen to describe similar technocultural developments, and thus, the spheres of sophisticated cognitive assembling under surveillance capitalism and networked posthuman existence can be seen to converge.

In a schizoid nondroid assemblage, the dynamics the three scholars describe work as follows. Posthuman individuals interface with technology and join it in cognitive assemblages. In the confines of surveillance capitalism this results in people generating data through their actions, which is then extracted and exploited without regard to individual well-being or their privacy rights (Zuboff 2015, 83). Thus, the assemblage not only incorporates humans, technology, and information capitalists, but also becomes schizoid in its behavior. In their operation, schizoid nondroid assemblages accelerate the negative effects of traumatic materialism, inherent in the posthuman condition.

The synthesis of these views by Hayles, Nayar and Zuboff, reveals how saturation, interfacing, and assembling are increasingly co-opted and commodified by the forces that control information infrastructures. This is especially evident when human cognizers are needed to exert control over other humans with means that are not available to technological cognizers. That is, schizoid nondroids need a human face to mask their schizoid tendencies and to get people to act in ways that are beneficial for the system as a whole, often at the cost of human well-being.

Shoshana Zuboff characterizes surveillance capitalism as a new mode of information capitalism and situates its origins in Google's shift from managing search engines to selling the behavioral data that is created through the use of its services

(2015, 78–81). As more and more digital activity occurs on surveillance capitalist platforms, the solicitation of ever further engagement becomes increasingly important to the accumulation and refining of data and the models based on it. This also explains the expansive drive of the most successful surveillance capitalist platforms like Facebook and Google: the extension to more aspects of everyday experience becomes a prerequisite for further growth.

This expansion is clearly visible in Dave Eggers's satirical dystopia. The novel tells the story of 20-something Mae who gets a job at the Circle, the most exciting company in the world. She starts out in its customer experience team, rises through the ranks and, in the end, becomes one of the most important spokespeople for the company and its projects. These include striving for a monopoly in online searches, advertising, commerce, surveillance, elections, and, in fact, most aspects of technologically mediated private and public life.

In so doing, the Circle harnesses the environmental potential of its digital platforms, highlighting the close relationship of algorithmic systems and contemporary governmental and corporate environment to which Hayles draws attention. For her, computational media has the ability "to address humans in the microtemporal regime, underneath the temporal horizon of consciousness" (2021, 37). An analogous operation can be seen in the novel as the progress of the Circle's projects is constantly kept at a distance, just beyond Mae's conscious understanding, leading to her crucial lack of critical appraisal with regards to her employer and the digital transformation it seeks to engender.

One of the symbols of the advancement of the company's quest to "COMPLETE THE CIRCLE" (325, emphasis original) are the multiplying screens Mae needs to do her job. Starting out with a mere two, one for managing customer requests, the other for intra-company communication, Mae ends up with six different screens and a camera necklace broadcasting whatever she sees to the totality of the connected world. At the very end of the novel, the reader leaves Mae thinking about the possibility of accessing

the thoughts of Annie, her friend now in a coma, through technology, underlining the last vestiges of privacy in the novel's storyworld.

In this way, the distinction between online and offline existence loses its significance as digital technologies in league with capitalism strive to engulf the totality of lived experience. The ghost is no longer contained by the machine. Zuboff coins the phrase "Big Other" to signify this shift, thus separating the surveillance capitalist model from those previous systems that were characterized by an Orwellian Big Brother – an idea that has become obsolete as a "totalitarian symbol of centralized command and control" (2015, 82). In contrast to the classically panoptic surveillance architectures, or the hierarchical surveillance of the workplace, this is a world where "habitats inside and outside the human body are saturated with data and produce radically distributed opportunities for observation, interpretation, communication, influence, prediction, and ultimately modification of the totality of action" (2015, 82). In surveillance capitalism, there are fewer and fewer places of escaping Big Other, as we take it wherever we go with devices we are increasingly reliant on. As such, surveillance capitalism restricts one of Hayles's central features of cognitive assemblages: the ability to make "choices and decisions that create, modify, and interpret the flow [of information]," thus limiting the power of human cognizers to "direct their powers to act in complex situations" (2017, 116). It becomes increasingly harder to choose whether to remain a part of schizoid nondroid assemblages.

These restrictive impulses can be observed in Eggers's novel, as other people begin to enforce the Circle's way of thinking on Mae. As a result, her development becomes a gradual, and ultimately total, acceptance of a schizoid ethos. An important part of the project is the incorporation of her private life into the purview of the schizoid nondroid assemblage. In the passage quoted below, Mae has been summoned by Dan, her supervisor in Customer Experience. She is still new at the company, but already has perfect scores in her key performance indicators. This is covered quickly by Dan who then goes on to say that maybe Mae has missed some elements of what it means to work at a place like the Circle: "Okay, let's focus on

Thursday at five fifteen. We had a gathering [that] was a semi-mandatory welcome party for a group of potential partners. You were off-campus, which really confuses me. It's as if you were fleeing" (177).

This is a question about what Mae, as a worker, has done on her free time on a Thursday evening. Dan's confusion is the first hint of a schizoid inability to see Mae as an independent human being, as he has trouble at thinking of a good reason for Mae's departure from the company campus. Also note how the Circle is able to keep tabs on its workers at all times. The scene continues: "Mae's mind raced. Why hadn't she gone? Where was she? She didn't know about this event. It was across campus … how had she missed a semi-mandatory event? The notice must have been buried deep in her third screen" (178).

Of course, many companies with an innovative bent tend to emphasize informal gatherings among colleagues both for team-building and the occasional impromptu breakthrough. Mae is aware of this, but has an explanation: '"God, I'm sorry,' she said, remembering now. 'At five I left campus to get some aloe at this health shop in San Vincenzo. My dad asked for this particular kind … '" (178).

Mae's father suffers from multiple sclerosis and she often helps him and her mother. Dan goes on to lecture Mae about the superior shopping (and other) facilities at the campus, but then begins an inquiry about the following evening:

> "And Friday night? There was a major event then, too."
>
> "I'm sorry. I wanted to go to the party, but I had to run home. My dad had a seizure and it ended up being minor, but I didn't know that until I got home."
>
> (178)

Again, Mae's first reaction is to apologize and frame her very reasonable decision as slightly misguided: the seizure was not anything big after all. Dan's reaction is seemingly sympathetic but still accusatory:

> "That's very understandable. To spend time with your parents, believe me, I think that is very, very cool. I just want to emphasize the *community* aspect of this job. We see this workplace as a *community*, and every person who works here is *part* of that community.
>
> …
>
> "Listen. It totally makes sense you'd want to spend time with your parents. They're your parents! It's totally honorable of you. Like I said: very, very cool. I'm just saying *we* like you a lot, too, and want to know you better. To that end, I wonder if you'd be willing to stay a few extra minutes, to talk to Josiah and Denise. … They'd love to just extend the conversation we're having, and go a bit deeper. Does that sound good?"
>
> (179, emphases original)

Dan is not fazed by Mae's admission of what happened that Friday night, a potentially severe medical event in her immediate family. In fact, he dismisses its significance for their conversation and goes on to emphasize the Circle's point of view and, in fact, its needs. While being with one's family is, in quite an understatement, "very, very cool," the Circle should be taken into account as a community that deserves similar dedication as close relatives. To act otherwise suggests that one does not belong and cannot fulfill the needs of the company, a prerequisite for working there.

Finally, the question about continuing the discussion with HR personnel at the end of the passage is really not a question at all. There is only one way Mae can answer and as a result the scene goes on, at length, with a very thorough interview about Mae's antisocial behavior. It turns out that she failed to share her weekend activities of watching basketball and kayaking with the Circlers on the company's social media site and has not posted about her father's condition once. Even the marine life she observed during her kayaking trip was recorded in a paper notebook rather than

posted on the network, a practice which Josiah emphatically protests against, not wanting to "call it selfish but – " (188).

As these examples indicate, the managers at the Circle have internalized the models of behavior that the schizoid nondroid expects of them and exerts those expectations onto others like Mae without much regard for their personal circumstances. The narrative and values of the nondroid become the narrative and values of people within its networks. For them, it becomes increasingly difficult to circulate "information, interpretations, and meanings" and to have a say in the "distributed agency" of cognitive assemblages (Hayles 2021, 39).

When the schizoid nondroid assemblage expands, this exertion of values and the nondroid as a whole become increasingly harder to control. *The Circle* is filled with off-hand mentions of how the FCC, EU, environmental groups, privacy activists, and the like try to curtail its power, but in vain. The fact that the references to such measures are mere side notes in the narration focalized through Mae show that within the schizoid nondroid assemblage many of the negative effects they have on the real world remain unseen or appear insignificant. For Mae, specifically, Annie's work in pacifying various political opponents is shadowed by the drama of her interpersonal relationships at the company as well as the excitement at its projects to change the world. Mae's perspective is satirized throughout the novel as she repeatedly falls into a pattern of first trying to protect her own privacy and personal identity, but in the next turn expects others to relinquish such rights for the service of the company's ambitions.

The results of this dynamic are painstakingly depicted, as Mae becomes the Circle's most fervent advocate, despite the consequences to her family, loved ones, and society in general. The Circle uses its vast surveillance capitalist power and the human cognizers in its networks to "become all-seeing, all-knowing," so that "[a]ll that happens will be known" (71). When Mae is confronted by Mercer,[6] her ex-boyfriend, a King Crimson fan (130), and an anti-Circle entrepreneur, he tells her about having been offered a gadget so as to scan all the bar codes in his home to

automatically replenish his products. The following exchange sums up the stealthy schizoid dynamic:

> "You know how they framed it to me? It's the usual utopian vision. … I mean, like everything you guys are pushing, it sounds perfect, sounds progressive, but it carries with it more control, more central tracking of everything we do."
>
> "Mercer, the Circle is a group of people like me. Are you saying that somehow we're all in a room somewhere, watching you, planning world domination?"
>
> "No. First of all, I *know* it's all people like you. And that's what's so scary. *Individually* you don't know what you're doing *collectively*."
>
> (260–1, emphases original)

As we have seen, in cognitive assemblages, decisions over the creation, modification, and interpretation of information are central for arriving at meaning, but a schizoid nondroid like the Circle tries to limit the decisions by its human cognizers. Schizoid nondroids are indifferent to the needs of their human cognizers and use some of them to further that indifference onto others. Zuboff has called attention to the same process, emphasizing that companies like Facebook do not handle the people in their network as users or even the product. Rather, they are the raw material from which behavioral data is extracted and refined for sale (Zuboff 2019). Similarly, the workers at the Circle are reduced to fueling the system without a clear view of its total function and effects.

The Circle's insidious feedback loops that incorporate technological networks, the logic of hegemonic surveillance, and the human cognizers in their sphere of influence can always mask the significance of their accumulating choices that ultimately lead to a neo-Orwellian dystopia. In sum, Mae starts out by accepting the challenging working conditions, then the even more challenging norms of digital social activity, and later, having internalized the modus operandi of the schizoid

nondroid, questions any and all invocations of privacy rights. She even ends up coining a trio of slogans for the Circle's project, "SECRETS ARE LIES … SHARING IS CARING … PRIVACY IS THEFT" (305, emphases original), and starts recording her every waking hour by "going transparent" to share "all she saw and could offer to the world" (306). In this way, the dissemination of the schizoid logic onto human cognizers leads to dismantling free exchange of meaning. As a result of Mae working in concert with the schizoid nondroid network, "America becomes a totalitarian state without anyone noticing" (Pignagnoli 2018, 187).

Traumatic Materialism 2.0

This capitalist-totalitarian expansion of the schizoid nondroid logic can be seen to correspond to what Nayar terms "traumatic materialism," the way in which networked posthuman reality marks individual bodies as interfaces that produce a "distributed subjectivity." This subjectivity is central to the flow of information that is produced by "a mix of human and non-human actors" (Nayar 2014, 66), and is reminiscent of Hayles's conceptualization of cognitive assemblages. Nayar argues that this intersection of the material and immaterial can traumatize the individual body, and he uses Cayce Pollard, the protagonist of William Gibson's *Pattern Recognition* (2003), as a central example (Nayar 2014, 66–9).[6] Cayce has an almost supernatural ability to decipher the semiotics of brands and predict their performance on the market, even though she suffers from a severe allergy to brand imagery like the Michelin Man (97, 98) or the utterly unimaginative designs of Tommy Hilfiger (17–18). Nayar argues that Gibson takes "the body as the site of [the] intersection of material and immaterial but shows the body as traumatised by this intersection" (2011, 55–6). He locates Gibson's critique of capitalism as it "thrives primarily on the spread, control and collection" of data in *Pattern Recognition*'s instances of traumatic materialism. Through them, Gibson critiques the use of data in capitalism and

highlights how the circulation of data requires bodies to cognitively register, channel, and assimilate it (Nayar 2011, 60).

Nayar's conceptualization of traumatic materialism can be usefully developed beyond the discussion of Gibson's novel and applied to the depiction of schizoid nondroid assemblages in other works of fiction and, by extension, to experience of life under surveillance capitalism. In his reading of *Pattern Recognition*, Nayar finds three distinct intersections "of data and flesh" in the novel. First, there is Cayce's sensitivity to brands, discussed above, "a materialization of information" through Cayce's body (Nayar 2014, 66). Second, Magda, a viral marketer, influences consumer behavior at bars and clubs through word-of-mouth and her listeners disseminate the information further; here data is transmitted through bodies to other bodies with conspicuous efficiency that results from the human-to-human interactions. Third, Nora, the artist behind the mysterious "footage" (4) around which the plot revolves, turns out to be paralyzed due to a piece of shrapnel lodged in her brain, communicating only through the editing of video. As the narrator puts it: "Only the wound, speaking wordlessly in the dark" (305). Nora's case is the most dramatic of the intersections and the clearest instance of an originating traumatic event that is translated into media data and disseminated online.

However, Nayar leaves out the analysis of a fourth instance of traumatic materialism in Gibson's novel. It is one that, to me, seems useful in bringing traumatic materialism to bear on understanding experientiality in the cognitive assemblages of surveillance capitalism as potentially traumatic to the human bodies within them.

In my reading, a key instance of traumatic materialism in *Pattern Recognition* is quite mundane, that is, Cayce's engagement with "Fetish:Footage:Forum" (3, F:F:F for short), a message board for footage enthusiasts. There, competing schools of "footageheads" (4) argue between origin theories, pour over poststructuralist interpretations, and make friends as in any nerdy Usenet group or Reddit community. For globetrotter Cayce, the forum is as "familiar as a friend's living room" (3), "a way now, approximately, of being at home," and "a familiar café … somehow outside of

geography and beyond time zones" (4). This commonplace intersection of bodies and data veers toward trauma when the forum interactions become co-opted by machineries of surveillance and capitalism. Bigend, the novel's villainous advertisement magnate, uses Cayce to find the origin of the footage, but she also becomes a person of interest for the security operatives of a Russian oligarch through the forum. In the midst of such conflicting agendas, F:F:F is revealed to have been infiltrated by paid lurkers who follow the discussions and profile users. As Cayce emerges as one of the most interesting commentators, she is also interpreted as possibly linked to an intelligence operation directed against the oligarch Volkov. As a result, the Russians break into the records of Cayce's therapist, and Dorotea, her professional rival, manages to exploit her allergy to brands, among other attempted assaults.

Even without the full arsenal of a surveillance capitalist internet, the intersection of bodies and data puts Cayce in danger as the F:F:F forum is exploited by factions each bent on protecting their own interests. In a stark contrast to the Circle's schizoid ignorance of people's individuality, the shadowy Bigend and Volkov are depicted as surprisingly amiable. Cayce's troubles and turmoils are presented as failures of their systems of surveillance as the attention she garners is mostly due to misunderstanding and outdated Cold War protocols. The two apologize for this, which shows that individual well-being is something they at times consider, despite their otherwise ruthless capitalist and criminal methods.

The example of F:F:F, even with its effects on Cayce, shows that traumatic materialism as a theoretical concept does not need to be as dramatically trauma-inducing as some of Nayar's examples would indicate. Instead, it encompasses the various unexpected results that ubiquitous connectivity can have in the contemporary moment. A real-world parallel to the online-born danger in Gibson's novel could be the sadly common contemporary doxing operations against feminists, journalists, and celebrities that are propagated in the depths of forums like 4chan, and coordinated Twitter harassment.

However, the most important implication of the concept of traumatic materialism is not that interfacing with technology is automatically traumatizing or a physical, violent penetration of the body by technology – as cyberpunk tradition often has it – but that the quality and severity of trauma are dependent on the uses that networked technologies are put into. This means that in cognitive assemblages with human and technological cognizers, it is not one or the other that necessarily induces trauma, but rather that the details of their interfacing affect the results, some of which can be traumatic in nature. With this additional aspect, Nayar's concept becomes more useful: traumatic materialism is what can result from the intersection of bodies and data when the technologies that enable this intersection in the first place are not used in ways that prioritize the well-being of bodies in such assemblages.

Next, I argue that it is in the surveillance capitalist context that the probability and severity of traumatic materialism are increased. In other words, schizoid nondroid assemblages are especially viable in inducing trauma to the bodies in their expanding sphere of influence.

Malka Older's debut novel *Infomocracy* explores progressive political alternatives to nation-state mandated representational democracy, and offers a less-than-dystopian view of surveillance capitalism.[7] In the novel's imagined future, an organization called "Information" (15) manages a global network, striving to adhere to ideals of transparency, accountability, and informed decision-making. Nation states have largely been abolished and replaced with a global "micro-democratic" (22) system, where "centenals" (13), groups of a hundred thousand, elect their governments from a variety of possible parties. Some are conglomerates of corporations like "Liberty" (16) or "PhilipMorris" (33), while others like "Earth1st" (166) and "YouGov" (50) are centered around shared policies, and yet others like "ChouKawaii" (123) are composed of locally popular fringe groups.

The overall tone of the novel is more positive than *The Circle*. Clearly, Information as an organization wields similar powers as the Circle to be able to maintain a global internet and administer democratic institutions with it, but the

difference seems to be in the overall goals of the surveillance capitalist masters. Older understands the workings of large organizations, UN agencies, and internet infrastructure too well to simplify Information into a group of wise, benevolent rulers administering a perfect system, but the way the system is primed to strive toward the sharing of information and communication aligns it with the more ideal cognitive assemblages Hayles describes, rather than the schizoid nondroid – even when the same tools that enable surveillance capitalism are in use. The title of the novel suggests as much: the rule of information is here, and hence, knowledge remains power, but is there a way to distribute it more evenly and in a democratic fashion? Therein lies the central conflict in Older's novel, as Information's dependence on the free movement of information, rather than hegemonic control over it, leaves it vulnerable to attempts of exploitation and to the potential for traumatic materialism that resides in cognitive assemblages.

In fact, Older shows how traumatic materialism can go beyond the experience of an individual and spread to larger demographic populations through the multitude of interfaced bodies in cognitive assemblages. A major driver for the techno-thriller plot in *Infomocracy* is the near-subliminal plan of Liberty, one of the corporate conglomerate parties, to influence latent impulses of several nationalistically oriented populations and thus to swing the election in their favor and win the global "Supermajority" (21) of centenals. Their operation is designed to appeal to certain demographic and regional cohorts, while staying off the radar from Information and the other parties. Liberty targets specific areas where histories of tense borders and fantasies of national supremacy have a long history – for example, Aceh, Taiwan, Cyprus, and Okinawa – and caters their message to the age-groups who have a personal connection to those discourses. In this way, Liberty taps into generational trauma by means of data dissemination, thus extending the traumatic materialism of bodies and data over vast and diverse populations. In the novel, this also carries with it the potential of war, something that the micro-democratic transformation has largely abolished in Older's fictional world.

Infomocracy was published before the revelations about the role of social networks in the 2016 presidential elections in the US and the Brexit vote in the UK. In such instances, exactly the kinds of techniques Older describes in her fiction have been employed with the technologies that surveillance capitalism currently employs, namely, by gathering and using behavioral data to modify future behavior. In such cases, the potential for traumatic materialism inherent in cognitive assemblages has been, and will be, exploited in ways that follow the schizoid nondroid ethos where goals and needs that do not align with those of the nondroid are ignored.

I have attempted to expand Nayar's concept of posthuman traumatic materialism to account for these mundane applications of networked technology that surveillance capitalism and the resulting schizoid nondroid assemblages are built on. My analysis of *The Circle* and *Infomocracy* may help us understand traumatic materialism as a potential that resides in cognitive assemblages. That potential can then be activated in various ways: employing seemingly neutral or even benevolent networks to inflict harm; restricting the movement of information to control people within the assemblage; and manipulating the dissemination of data to influence behavior, even over large populations. Each application engenders traumatizing effects of different kinds.

Conclusion: De-Schizoing the Schizoid?

The King Crimson stanza from *Epitaph* ends with the pessimistic couplet "The fate of all mankind I see / Is in the hands of fools." Sinfield's speaker finds no trust in the helmsmen of society in setting boundaries for the deadly potential of knowledge in the anxious atmosphere of the late 1960s. While nuclear catastrophe has not wiped out civilization, the 21st century schizoids, made into flesh, circuitry, and clouds still compete for the control of information to take the world toward their careless ends.

As a result, nearly all of the fictional applications of surveillance capitalist technology have become commercially available since *The Circle* was published in

2013. While their totalizing, dystopian effects are arguably not as dramatic as in Eggers's novel, concerns over the control of digital infrastructures and their harmful effects on individuals dependent on them remain. Over a matter of days in February 2019, both *The Verge* and Reuters reported on the poor wellbeing of outsourced Facebook content moderators, resulting from continued exposure to the worst the internet has to offer (Newton 2019, Vengattil and Dave 2019). Such news adds to the widely reported instances of disinformation, far-right discourses, and toxicity that mark the cognitive assemblages of today, with grave results for marginalized populations as is commonplace for capitalism throughout its history.

I have defined the schizoid nondroids as cognitive assemblages reined by the forces and motives of surveillance capitalism. Within them, possibilities of free dissemination of information diminish and the potential for traumatic materialism is activated. As in *The Circle*, the schizoid nondroids need human cognizers within their power to internalize and spread their schizoid ethos.

For the schizoid nondroids of our time, it is important to not be revealed as being indifferent to the consequences of their actions on people and communities. Thus far, however, regulation, boycotts, or other forms of resistance have not had significant effect on their function. The benefits of these assemblages continue to be seen to outweigh their negative effects, and the convenience of the many trumps the threatened rights of the few. The implicit narrative is also largely defined by the nondroids themselves: let us do as we please, trust us when we say that we care, and things will turn out for the best. Thus, uncovering and critically examining the intersections of bodies and technologies must be seen as a starting point for amassing gravitas to reverse the schizoid nondroids' influence, so that we can start making our nondroids more humane and avoid some of the dangers of the twenty-first century. Seeing schizoid nondroids as both an abstraction of our contemporary surveillance capitalist moment and a literary interpretation of those complexities is one avenue of this project of critical detection. As such, it is also one answer to Hayles's call for ways of talking "about the enmeshments of humans, nonhuman others, and our

computational symbionts without obliterating important distinctions and yet also acknowledging commonalities" (2021, 43).

While fiction, speculative or otherwise, is not the most effective vehicle in engendering technical knowledge or political and societal change, its unique characteristics as a cognitive environment with which to think about the complexities of experience within cognitive assemblages can create affordances for imagination beyond resignation. As she notes in *Unthought*, for Hayles the potential "for constructive intervention and systemic transformation" into cognitive assemblages lies at the intersections of bodies and technology (2017, 143). Thus, the choices we now make in developing or resisting different kinds of cognitive assemblages "will have extensive implications … for the kinds of future we fashion for ourselves and other cognitive entities with whom we share the planet" (Hayles 2017, 132). The themes and techniques of speculative fiction, as I have tried to demonstrate by analyzing novels like *The Circle* and *Infomocracy*, can be seen as the beginnings of these interventions through which avenues of resistance against the schizoid logic might emerge.

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Notes

[1] The schizoid nondroid is ostensibly an update on Hayles's schizoid android, a figure she uses to discuss the complexities of cybernetics through Philip K. Dick's fiction in *How We Became Posthuman* (1999), whose central characteristic is its inability to understand others as humans. To me, the schizoids of Sinfield and Dick correspond to Hayles's and my use of "schizoid," while, for example, Janelle Monáe's "schizo running wild" in "Come Alive (War of the Roses)" (2009) has a Deleuze-Guattarian subversive potential as her alter-ego Cindi Mayweather enacts a violent rejuvenation sparked by the pressures of a dystopian society.

[2] Following Zuboff, by surveillance capitalism I mean the system of business models of technology giants like Google, Facebook, Amazon, Apple, and Microsoft whose core business is about amassing behavioral data through their services and selling that data to influence consumer decisions. Surveillance capitalism is thus a historical sub-category of information capitalism as the general economic structure of, for example, Western market economies (however, see Morozov [2019] for a criticism of Zuboff for not paying enough attention to the relationship between capitalism and surveillance capitalism). It should also be noted that information capitalism is necessarily material as well, insightfully exemplified by Levenda and Mahmoudi (2019). For a historical analysis that goes against terminology like *postindustrial capitalism* see Beckert (2015, esp. 440).

[3] Nayar does not explicitly refer to terms like "extended cognition" from cognitive science, but I adopt the idiom to highlight how Nayar, Zuboff, and Hayles all chart waters that can be fruitfully analyzed through the so-called enactive approach to cognition. For more information, see, the special issue of *Style* (48, no. 3, 2014) on cognitive literary study or Terence Cave's *Thinking with Literature: Toward a Cognitive Criticism* (2016).

[4] *The Circle* is indeed a satire of, at least, Silicon Valley corporate culture, the privacy/security discourses in the US after 9/11 and the war on terror, as well as of the attention economies of social media. While this affects the poetic techniques Eggers employs, my focus is on the novel's themes that are similar to much of speculative and dystopian fiction concerned with information technology and capitalism.

[5] For a more detailed analysis of transhumanity in *The Peripheral*, see Suoranta 2016.

[6] Mercer's name and his stand against Mae on issues of collectivity and individualism, spiritualism and technofetishism, as well as transparency and privacy align him with the martyr-like Mercer of Dick's *Do Androids Dream of Electric Sheep?* (1968) whose Sisyphos-like sufferings are felt by his followers through "empathy boxes." Similarly, *The Circle*'s Mercer emerges as an affective center of the novel through his various sufferings (and, ultimately, death) that are caused by Mae's myopic dedication to the Circle.

[7] For a discussion of Malka Older's protagonist Mishima as another victim/beneficent of such interfacing, see Suoranta 2018.